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Analysis of Three Influential Decades

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Introduction

Three decades that, I think, have had the most impact on technical advances and knowledge are 1950, 1980 & 2000. And, as I also tried to illustrate, these decades seem to overlap each other, all seeking the same thing but in different formats, theorists and educators all coming together collectively.

I think the first actual strand of time (or decade) in which communication impacted technology and education jointly, was 1950-1960. Happening within Toffler’s rendition of The Third (Communication) Wave, these defining examples are demonstrated here.

The First Spotlight (1950 - 1960)

The immergence of both behavioral and cognitive theories pled for a way of integrating education and technology. While Skinner advanced the concept of using educational films, and developed a teaching machine in the early part of the 20th century, Dale’s “Cone of Experience” detailed the cognitive approach of learning via “direct and personal experiences” (Saettler, p. 143)

Historical relationship between communication and educational technology began much earlier, laying a frame work for future theorists. However true scientific research for technology in education did not impact education until the 1950’s.

“The 1950’s proved to be particularly fertile in the development of conceptual modes of communication.” (Saettler, p. 265) Scientists such as Skinner and Keller (behaviorists) and Lasswell and Gerbner (cognitivists) had introduced theories of learning that were not truly considered before this time.

The science of communication was very important to educators as well as technologists. Two such scientists, Harold Lasswell and George Gerbner, drew theories from formulas of communication that could be attached to educational cognitive theory. The diagram below illustrates the symbiotic relationship of these two separate but equal formulas developed by Lasswell, and Gerbner.

[The arrows are my own graphic interpretive comparison.]

Harold D. Lasswell’s formula for a communication channel blends with Gerbner’s model:

**Gerbner’s model of communications** **Harold D. Lasswell’s formula**

Who

Control Studies

Someone

Perceives an event

Says What

Content Analysis

And reacts

In a situation

In Which Channel

Media Analysis

Through some means

To make available materials

To Whom

Audience Analysis

In some form

And context

With what effect

Effect Analysis

Conveying content

With some consequence

Both of these communication scientists gifted their theories to educational technology as we know it today.

The Second Spotlight (1980-90)

The andragogy theory for adult education through Malcom Knowles research and practice, pioneered the theories on adult learning, developed directly from the cognitivist theories of the 1960’s; therefore, the second spotlight should highlight 1980. Andragogy set the tone and pace for adult education and cognitive learning theory in the 1980 era.

Malcom Knowles premised andragogy on four crucial assumptions:

1. Self concept: As a person matures his self concept moves from one of being a dependent personality toward one of being a self-directed human being [this premise was a corner-stone for the thinking behind the CAI (Computer Assisted Instruction) Lab – in my humble opinion].
2. Experience: As a person matures he accumulates a growing reservoir of experience that becomes an increasing resource for learning [adults tend to use past experience for learning styles and retainment].
3. Readiness to learn: As a person matures his readiness to learn becomes oriented increasingly to the development tasks of his social roles [mental maturity depends a great deal on inter-active social roles].
4. Orientation to learning: As a person matures his time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly his orientation toward learning shifts form one of subject-centeredness to one of problem centeredness. [most adult learners tend to have a more tactile-kinesthetic learning style which serves them in pragmatic problem solving – hand to brain].
5. (Added by Knowles) Motivation: As a person matures the motivation to learn is internal (Knowles 1984:12)

“The adult education movement became an important aspect of American intellectual life and established the mold of academic respectability for the visual instruction movement.” (Saettler, p. 123)

The 1980’s brought about the rise of the computer in business and education. Adult learning was considered more important for furthering the education of adults with only remedial or basic education. Knowles used his model of andragogy to reach men coming into the work world via life experiences. Life experiences are mirrored in technology (e.g. films, computers and communicative devices such as phones, faxes, TV and radio). It is much easier for adults to learn through previous life experiences than to change their learning styles to fit a pre-programmed pedantic method.

“The adult education movement became an important aspect of American intellectual life and established the mold of academic respectability for the visual instruction movement.” (Saettler, p. 123)

The Third Spotlight – 2000-10

The third decade that I felt should be noted would definitely be 2000, the beginning of the 21st century. The evolution of the media involved in presentation of world -wide knowledge, through the innovations of the internet.

As the new century loomed, there was considerable consternation about whether or not there would even be a new century; that the computer world would crash, that the world would end (much like the worry that 2012 will be the end of the world as we know it – which is probably true. We will never go back to a non-technology world).

However, we are constantly inundated with new and better technology. Communication and innovations sometime are not the thoughtful, theory development, as forerunners like Skinner and Gerbner intended. But this is a time of deeper concern for the future of education through technology.

Malcom observes, “ technology in education may not live up to its potential in the near term because of hardware costs, software limitationsand development costs, and lack of preparation of teachers to take advantage of the present capabilities.” (Saettler, p. 538) This is true. World events, such as recession, can eat away at a school budget at great cost to educational technological expansion. It may become more than necessary to look at the benefits of technology and what these benefits have brought to our present from the past.

Conclusion

The above analysis of the most influential decades impacting technical growth in the burgeoning field of educational technology and, as I have attempted to add, educational knowledge, are pivotal, and complimentary in their influence upon the 21st Century. Every day there is a new innovation introduced to the commercial world. Basically humans are communicating in new and different ways – some good, some deficient in their purposes. Evolution depends on human innovation and ingenuity. Technology is providing the vehicle for both of these qualities.

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